

Amendments to the Claims

Please amend the claims as follows:

1.-126. (Canceled)

127. (New) A method for prolonging life of drilling equipment, the method comprising:

providing a drilling fluid system having effective rheology and fluid loss control properties, the drilling fluid system comprising a continuous phase comprising a dispersion comprising a quantity of fatty acid soap comprising alkali metal selected from the group consisting of lithium, potassium, rubidium, cesium, and combinations thereof; and,

performing drilling operations using the drilling fluid system under conditions effective to maintain effective rheology and fluid loss control properties and to produce lubricated drilling equipment comprising one or more metal surface having improved lubricity.

128. (New) The method of claim 127 wherein the conditions comprise a temperature of 250 °F (121 °C).

129. (New) The method of claim 127 wherein the conditions comprise a temperature of 300 °F (148 °C).

130. (New) The method of claim 127 wherein the conditions comprise a temperature of 450 °F (232 °C).

131. (New) The method of claim 127 wherein the improved lubricity comprises an increase of 25% or more in lubricating film strength compared to a control during extreme pressure testing.

132. (New) The method of claim 128 wherein the improved lubricity comprises an increase of 25% or more in lubricating film strength compared to a control during extreme pressure testing.

133. (New) The method of claim 129 wherein the improved lubricity comprises an increase of 25% or more in lubricating film strength compared to a control during extreme pressure testing.

134. (New) The method of claim 130 wherein the improved lubricity comprises an increase of 25% or more in lubricating film strength compared to a control during extreme pressure testing.

135. (New) The method of claim 127 comprising selecting the alkali metal from the group consisting of lithium, potassium, and combinations thereof.

136. (New) The method of claim 127 comprising selecting lithium as the alkali metal.

137. (New) The method of claim 133 comprising selecting the alkali metal from the group consisting of lithium, potassium, and combinations thereof.

138. (New) The method of claim 133 comprising selecting lithium as the alkali metal.

139. (New) The drilling fluid system of claim 127 wherein the quantity is from about 0.01 to about 10 vol.% of said drilling fluid system.

140. (New) The drilling fluid system of claim 127 wherein the quantity is from about 2 to about 5 vol.%.

141. (New) A method for prolonging life of drilling equipment, the method comprising:

providing a drilling fluid system having effective rheology and fluid loss control properties comprising an aqueous continuous phase comprising a dispersion comprising a quantity of fatty acid soap comprising alkali metal selected from the group consisting of lithium, potassium, rubidium, cesium, and combinations thereof; and,

performing drilling operations using the drilling fluid system under conditions effective to maintain effective rheology and fluid loss control properties and to produce lubricated drilling equipment comprising one or more metal surface having improved lubricity.

142. (New) The method of claim 141 wherein the conditions comprise a temperature of 250 °F (121 °C).

143. (New) The method of claim 141 wherein the conditions comprise a temperature of 300 °F (148 °C).

144. (New) The method of claim 141 wherein the conditions comprise a temperature of 450 °F (232 °C).

145. (New) The method of claim 141 wherein the improved lubricity comprises an increase of 25% or more in lubricating film strength compared to a control during extreme pressure testing.

146. (New) The method of claim 142 wherein the improved lubricity comprises an increase of 25% or more in lubricating film strength compared to a control during extreme pressure testing.

147. (New) The method of claim 143 wherein the improved lubricity comprises an increase of 25% or more in lubricating film strength compared to a control during extreme pressure testing.

148. (New) The method of claim 144 wherein the improved lubricity comprises an increase of 25% or more in lubricating film strength compared to a control during extreme pressure testing.

149. (New) The method of claim 141 comprising selecting the alkali metal from the group consisting of lithium, potassium, and combinations thereof.

150. (New) The method of claim 141 comprising selecting lithium as the alkali metal.

151. (New) The method of claim 147 comprising selecting the alkali metal from the group consisting of lithium, potassium, and combinations thereof.

152. (New) The method of claim 147 comprising selecting lithium as the alkali metal.

153. (New) The method of claim 141 wherein the quantity is from about 0.01 to about 10 vol.% of said drilling fluid system.

154. (New) The method of claim 141 wherein the quantity is from about 2 to about 5 vol.%.

155. (New) The drilling fluid system of claim 141 comprising polymer comprising one or more monomers comprising acrylamide.

156. (New) The drilling fluid system of claim 147 comprising polymer comprising one or more monomers comprising acrylamide.

157. (New) The drilling fluid system of claim 150 comprising polymer comprising

one or more monomers comprising acrylamide.

158. (New) The drilling fluid system of claim 141 comprising polymer comprising a combination of acrylamide alkyl alkane sulfonate monomer and dialkyl acrylamide monomer.

159. (New) The drilling fluid system of claim 141 comprising polymer comprising a combination of AMPS and DMA.

160. (New) A method for prolonging life of drilling equipment, the method comprising:

providing a drilling fluid system having effective rheology and fluid loss control properties, the drilling fluid system comprising one or more polymers comprising one or more monomers comprising acrylamide and a continuous phase comprising a dispersion comprising a quantity of fatty acid soap comprising alkali metal selected from the group consisting of lithium, potassium, rubidium, cesium, and combinations thereof,

performing drilling operations using the drilling fluid system under conditions effective to maintain effective rheology and fluid loss control properties and to produce lubricated drilling equipment comprising one or more metal surface having improved lubricity.

161. (New) The method of claim 160 wherein the continuous phase is aqueous.

162. (New) The method of claim 160 wherein the alkali metal is selected from the group consisting of lithium, potassium, and combinations thereof.

163. (New) The method of claim 160 wherein the dispersion remains thermally stable when the conditions comprise a temperature of 250 °F (121 °C).

164. (New) The method of claim 160 wherein the dispersion remains thermally stable when the conditions comprise a temperature of 300 °F (148 °C).

165. (New) The method of claim 160 wherein the dispersion remains thermally stable when the conditions comprise a temperature of 450 °F (232 °C).

166. (New) The method of claim 160 wherein the improved lubricity is demonstrated by an increase of 25% or more in lubricating film strength compared to a control during extreme pressure testing.

167. (New) The method of claim 160 wherein the quantity is from about 0.01 to about 10 vol.% of said drilling fluid system.

168. (New) The method of claim 160 wherein the quantity is from about 2 to about 5 vol.%.

169. (New) The drilling fluid system of claim 160 comprising polymer comprising a combination of one or more acrylamide alkyl alkane sulfonate monomers and one or more dialkyl acrylamide monomers.

170. (New) The drilling fluid system of claim 160 comprising polymer comprising a combination of AMPS and DMA.

171. (New) A method for prolonging life of drilling equipment, the method comprising:

providing a drilling fluid system having effective rheology and fluid loss control properties, the drilling fluid system comprising a continuous phase comprising a dispersion comprising a quantity of lithium stearate,

performing drilling operations using the drilling fluid system under conditions effective to maintain effective rheology and fluid loss control properties and to produce lubricated drilling equipment comprising one or more metal surface having improved lubricity.

172. (New) The method of claim 171 wherein the continuous phase is aqueous.

173. (New) The method of claim 171 wherein the dispersion remains thermally stable when the conditions comprise a temperature of 250 °F (121 °C).

174. (New) The method of claim 171 wherein the dispersion remains thermally stable when the conditions comprise a temperature of 300 °F (148 °C).

175. (New) The method of claim 172 wherein the dispersion remains thermally stable when the conditions comprise a temperature of 300 °F (148 °C).

176. (New) The method of claim 171 wherein the dispersion remains thermally stable when the conditions comprise a temperature of 450 °F (232 °C).

177. (New) The method of claim 171 wherein the improved lubricity comprises an increase of 25% or more in lubricating film strength compared to a control during extreme pressure testing.

178. (New) The method of claim 173 wherein the improved lubricity is demonstrated by an increase of 25% or more in lubricating film strength compared to a control during extreme pressure testing.

179. (New) The method of claim 174 wherein the improved lubricity comprises an increase of 25% or more in lubricating film strength compared to a control during extreme pressure testing.

180. (New) The drilling fluid system of claim 171 wherein said quantity is from about 0.01 to about 10 vol.% of said drilling fluid system.

181. (New) The drilling fluid system of claim 171 wherein said quantity is from about 2 to about 5 vol.%.

182. (New) The drilling fluid system of claim 171 comprising polymer comprising one or more monomers comprising acrylamide.

183. (New) The drilling fluid system of claim 171 comprising polymer comprising a combination of one or more acrylamide alkyl alkane sulfonate monomers and one or more dialkyl acrylamide monomers.

184. (New) The drilling fluid system of claim 171 comprising polymer comprising a combination of AMPS and DMA.

185. (New) The drilling fluid system of claim 175 comprising polymer comprising one or more monomers comprising acrylamide.

186. (New) The drilling fluid system of claim 175 comprising polymer comprising a combination of one or more acrylamide alkyl alkane sulfonate monomers and one or more dialkyl acrylamide monomers.

187. (New) The drilling fluid system of claim 175 comprising polymer comprising a combination of AMPS and DMA.

188. (New) The drilling fluid system of claim 176 comprising polymer comprising one or more monomers comprising acrylamide.

189. (New) The drilling fluid system of claim 176 comprising polymer comprising a combination of one or more acrylamide alkyl alkane sulfonate monomers and one or more dialkyl acrylamide monomers.

190. (New) The drilling fluid system of claim 176 comprising polymer comprising a combination of AMPS and DMA.